Broadcom's iSCSI offload is designed to deliver industry-leading performance, low CPU utilization, high reliability, and unified NIC and storage management using the Broadcom Advanced Control Suite (BACS) management application for 10GbE networks. Benefits include:

- **Industry-leading performance**: By fully offloading the iSCSI and TCP/IP stacks, the Broadcom iSCSI CNA does not need to compete with upper-layer applications, such as e-mail or Web applications, for CPU processing cycles. The iSCSI performance is unaffected by application workload.

- **Low CPU utilization**: Software-based iSCSI initiators consume considerable CPU cycles when handling I/O-intensive workloads, leaving little headroom for growing user application requirements. Broadcom's iSCSI CNA architecture minimizes the CPU overhead so that valuable CPU cycles are allocated to process user applications.

- **Highest reliability**: The iSCSI header/data digest computation of Broadcom's iSCSI CNA prevents data corruption that can occur in large networks with multiple switch hops so that iSCSI CNAs can be used in a wide variety of IP network topologies.

- **Unified NIC and storage management**: The BACS management application provides a single management platform for your network and storage I/O management.

**Features**

- Hardware iSCSI CNA
  - iSCSI CNA offload including header and data digest
- Common iSCSI driver stack for the BCM578XX family of controllers
- iSCSI CNA features
  - iSCSI initiator IPv4 and IPv6
  - iSCSI boot IPv4 and IPv6 CNA offload
  - iSCSI boot IPv4 and IPv6 host software stack
- Operating systems support:
  - Windows® Server
  - Red Hat® Enterprise Linux®, and Novell® SUSE Linux Enterprise Server
  - VMware® vSphere®

**Summary**

- World-class performance, optimized for high throughput, high I/O per second, and low CPU utilization.
- No need to compete with host applications for resources.
- Minimal load on host memory subsystem with zero copy.
- Adaptive interrupt coalescing.
- Avoids bottlenecks by using RSS (distributing network processing across multiple CPUs).
- Interrupt distribution in a multi-CPU system using MSI/MSI-X.
- Significant power savings over software initiator through iSCSI offload deployment.
- Simplified administration of iSCSI-enabled controllers across the data center and reduced complexity by using a common driver.
- Robust, flexible, seamless management using management application software.
- High IOPS performance:
  - Over 1.5 million iSCSI IOPS.

**Supported**

- BCM578XX

**Service**

- Provider
- Data Centers
- Enterprise

**Best Choice**
These figures show the relative performance (iSCI IOPS) and CPU effectiveness (IOPS per CPU%) of Broadcom’s iSCI offload versus Intel non-hardware offload iSCI adapter. Source: Demartek Labs, June 2012. Environment: Intel Xeon E5-2690 8-core server running the Microsoft® Windows® 2008 R2 SP1.

Unified Management Application

- Centralized, cross-platform management suite for configuration and management across all protocols.
- Integrated multiprotocol dashboard with all management functions across iSCI CNA, TOE, L2, and FCoE CNA.
- Comprehensive DCB and FCoE configuration and controller.

About Broadcom

Broadcom Corporation (NASDAQ: BRCM), a FORTUNE 500® company, is a global leader and innovator in semiconductor solutions for wired and wireless communications. Broadcom® products seamlessly deliver voice, video, data, and multimedia connectivity in the home, office, and mobile environments. With the industry’s broadest portfolio of state-of-the-art system-on-a-chip and embedded software solutions, Broadcom is changing the world by Connecting everything®. For more information, go to www.broadcom.com.